

## ABSTRACT

A method and system for reading a magnetic memory including a plurality of magnetic elements is disclosed. The method and system include determining a first resistance of at least one of the plurality of magnetic elements. The method and system also include  
5 applying a disturb magnetic field to the magnetic element(s) and determining a second resistance of the magnetic element(s) while the disturb magnetic field is applied. The method and system further include comparing the first resistance to the second resistance. Consequently, the state(s) of the magnetic element(s) can be determined without the use of a separate reference element.